Digital Movies: To CSS or To D e-CSS?

Introduction – Fair Use, Free Speech and Software

For decades, since the 1970's and the advent of the VCR there has been home copying. The ability to own and copy films on cassette has been made rather easy. There has, heretofore been no encryption, no viable methods to prevent copying without degrading the copy. Tapes in analog mode (VHS for example) degrade the images and sounds with each "generation" of copying. Thus, if I were to copy a film off of TV, then made a copy for a friend, that third copy is worse quality than a rented version and not usually commercially viable. Home copying was tacitly legal before the case but became a reality as quasi fair use called "time shifting." After Sony[2] , "…The question is … whether the Betamax is capable of commercially significant noninfringing uses. In order to resolve that question, we need not explore all the different potential uses of the machine." It is not an infringement for Sony to have brought to market a machine that enables easy home copying of Universal's films from TV. The Court held that, "The District Court found: 'Even if it were deemed that home-use recording of copyrighted material constituted infringement, the Betamax could still legally be used to record noncopyrighted material or material whose owners consented to the copying. An injunction would deprive the public of the ability to use the Betamax for this noninfringing off-the-air recording.' " People who make TV copies enable themselves to see films they want by capturing them on tape and watching them later. Why now all the fuss about copying?

Firstly, we now have the capability to transmit films worldwide in large quantity, instantly and cheaply in compressed and encoded formats. Copies can now be digital so that the film is no more than a series of zeros and ones that are exactly reproducible, streamable[3] and downloadable. One day we will be able to download or stream every film that was ever made. Digital copies do not degrade and multiple generations of digital copies can be made with little discernible change in quality or character, with DVD quality[4].

Secondly, the movie industry has its copyrights to protect. Copyright income from sales of films pay all the actors, gaffers, producers, production companies and many others who could lose their livelihoods if the industry loses billions. The public seems to have, for some reason, come to believe that because it is on the 'Net' it should be free. Who is hurt by such thinking is not just some "record" or "film" company but all the people, worldwide, who make a living making music and movies. One would not usually think of stealing a book or work of art from one's favorite author or artist, why then from a musical group or actor? The film industry has no choice but to prevent its "content" from being copied in digital format. They tried using techniques including DivX® compression, time limiting and subscription and various encryption methods including CSS.[5] CSS encoding prohibits the user from making a copy of a DVD film onto a computer.

In both of the following cases, the issue is the development of a decoding program for CSS called DeCSS, created by a Norwegian teenager, Jon Johansen . DeCSS enables one to

make an unprotected copy of a DVD digital movie on a computer. This is a situation where the right to invent comes up against "fair use" and the ability to publish immediately usable code as opposed to publishing articles and code about the software. The First Amendment generally protects encryption and other software as "free speech." The government's attempt to regulate this through DMCA is also a major issue in these two cases. Fair Use is not a right but an affirmative defense for infringement.

The Case of the Posted Executable: Universal vs. Corley[6].

Here, the plaintiffs are major movie studios that produce great films, many of which are available on DVD. There are many other studios and production companies out there affected by, but not able to afford to, join in. In order to prevent copying and illegal or infringing use of a DVD, they are encrypted by CSS. Use of a code supplied for a subscription fee from the maker of the DVD or its licensor can change the quality of the content to make it incapable of being copied, viewed in certain geographical locations and on some DVD players. This began when MPAA sued The Hacker Quarterly 2600, for publishing and linking to the DeCSS code in a related case, where it was alleged he directed his site's visitors to up to 300 other sites posting the banned code.

The defendants obtained Copies the DeCSS object code. Object code is the executable compiled program, generally only readable by a computer. With the ability to decrypt CSS code, anyone who owns a DVD of a film could decrypt it and then manufacture DVD quality films and sell copies worldwide over the internet. This type of copying, without payment of royalties can seriously damage the studios ability to sell the film and enforce their copyrights, market the film worldwide, show the film in a subsequent re-release or on TV, and many other limiting economic issues.

The first major issue included whether posting the executable object code, for "DeCSS" was protected under the First Amendment. "The initial issue is whether the posting prohibition is content-neutral, since, as we have explained, this classification determines the applicable constitutional standard." Here the Court dissected the "content" from the "functionality" of the object code. The defendants argued that the DeCSS was written for the limited purpose to allow a Linux-OS computer to show DVDs. Applying the O'Brien[7]/Ward[8]/Turner Broadcasting[9] requirements for content-neutral regulation, the trial Court ruled that the DMCA, as applied to the Defendants' linking, served substantial governmental interests and was unrelated to the suppression of free expression."

The second major issue was whether the DMCA[10], 17 U.S.C. 1201 (a)(1)(B-E), was applicable to the defendant's Anti-trafficking and technological circumvention prevention activities via linking[11]. "With respect to DeCSS code, … application of the DMCA to the defendants' linking to web sites containing DeCSS is content-neutral because it is justified without regard to the speech component of the hyperlink…."

The result is almost predictable under the DMCA. The Plaintiffs received a preliminary injunction that has been maintained. The defendants cannot post or disseminate the object code because it is an illegal circumvention of the copy protection on DVDs. The Court held, "The

DMCA and the posting prohibition are applied to DeCSS solely because of its capacity to instruct a computer to decrypt CSS. That functional capability is not speech within the meaning of the First Amendment." The Government sought to justify both the application of the DMCA and the posting prohibition to the Defendants solely on the basis of the functional capability of DeCSS to instruct a computer to decrypt CSS, i.e., "without reference to the content of the regulated speech,…." This type of regulation was found, therefore, content-neutral, "…just as would be a restriction on trafficking in skeleton keys identified because of their capacity to unlock jail cells, even though some of the keys happened to bear a slogan or other legend that qualified as a speech component."

Lastly, the Court considered the constitutional challenge based on claimed restriction of fair use. They analyzed the history of fair use based on the factors set forth in the Copyright Act[12], "the Supreme Court has never held that fair use is constitutionally required, although some isolated statements in its opinions might arguably be enlisted for such a requirement." Thus fair use is a privilege and a defense to an action for infringement, not a sword and not a "right." Note that copyright is a "bundle of rights," including the right to reproduce, distribute and make derivative works.

The Case of The Published Secret Code - DVDCCA vs. Bunner.

Copy Control Association (DVDCCA) v. Bunner[13] stated seemingly the opposite to the Universal case above, as the facts differ but slightly. This action was originally brought under the California Trade Secrets Act[14] and ultimately held that the publication of DeCSS could go on; no injunction. The First Amendment is involved in a different sense. Bunner "had allegedly republished or linked to DeCSS…," in source code[15] form. The violation was the publication. DVDCCA alleged that the code was wrongly reverse engineered and obtained by its licensee, Xing. They alleged the source code "embodies, uses, and/or is a substantial derivation of [DVDCCA's] confidential proprietary information…. obtained by willfully 'hacking' and/or improperly reverse engineering…."

Xing Technology licensed CSS to allow movie customers, provided with a key to unlock CSS encoded DVDs, using their brand of DVD player software. The Plaintiffs argued that under the Trade Secrets Act, if a trade secret violation is established, irreparable harm is presumed and "need not be shown." Xing was alleged to have improperly allowed hacking[16] the key and its dissemination on the Bunner web site.

Bunner argued that DeCSS was legally produced under Norwegian law and that he had no knowledge that the decryption program was obtained by improper means. He alleged the First Amendment protected the publication of the software because it is the publication of well known and already disseminated code, his purpose being to allow discussion about playing of DVDs on computers running the Linux OS. Bunner's expert witness declarations added up to: the use of the DeCSS from source code was not feasible, the code was obtainable without improper means and that discussion of the use of encryption software is an essential scientific discussion and is free speech. This First Amendment question was the first analyzed by the Court.

"The first question we consider is whether DeCSS is 'speech' that is within the scope of the First Amendment." It made no difference what form the "speech" takes[17] nor that Bunner was a republisher rather than the original author of the decryption software. "[A] naked prohibition against disclosures is fairly characterized as a regulation of pure speech."[18] The order issued by the trial Court had enjoined them from posting, "disclosing or distributing, on their web sites the DeCSS program, master keys or algorithms of CSS, or any other information derived from this proprietary information." The court expressly refused to enjoin the defendants from linking because the links were held to be indispensable to Internet access and a website owner could not be held responsible for the content of other web sites. The court further stated that, "[n]othing in this Order shall prohibit discussion, comment or criticism, so long as the proprietary information identified above is not disclosed or distributed."

The analysis here was different than in the Universal case, which was based on the DMCA. Here the Court dealt with state law, though the analysis began with a view towards the First Amendment being broad and permitting only a few instances of government regulation such as of obscenity or fighting words. Then, the Court stated, "DeCSS does not fall into any of these established exceptions: it is not obscene …nor did it involve any fighting words. DVDCCA does not ask this court to create a new judicial exception [to the First Amendment] for software containing a misappropriated trade secret and we decline to do so here." The Court reversed the injunction based on its analysis of the UTSA[19] as applied to the content regulation ordered by the trial Court. "First, DVDCCA had established that CSS was its trade secret, and DVDCCA had exerted reasonable efforts to maintain the secrecy of the program." Second, the evidence was "fairly clear that the trade secret was obtained through reverse engineering."

A trade secret is misappropriated if a person acquires it knowing or having reason to know that the trade secret has been, "acquired by 'improper means,' discloses or uses a trade secret the person has acquired by 'improper means,' or in violation of a nondisclosure obligation,…" It has been found that software can be a trade secret[20]. The snag here is that "source code has both an expressive feature and a functional feature." And the First Amendment may protect the expressive features of the program, the source code.

Another factor here is that the source code must be compiled into an object code, for a computer to execute it. This changes the outcome because in Universal it was the publication of object code, instantly usable, that was available to decrypt a DVD in violation of DMCA. Here, the code is readable and as such discussion such as scientific inquiry is more likely over source than unreadable 0s and 1s.

The result is that this publication may go on. It is one thing to enjoin a particular employee from revealing secrets he is contractually obligated not to reveal. It is another to stop publication of a work protected by First Amendment as free speech. As to the Fair Use issues, the 9th Circuit Court stated, "[fair use] offers a means of balancing the exclusive rights of a copyright holder with the public's interest in dissemination of information affecting areas of universal concern, such as art, science and industry. Put more graphically, the doctrine distinguishes between 'a true scholar and a chiseler who infringes a work for personal profit.' "

Under the UTSA, stated the Bunner Court, "Improper means" is defined by the Act to include "theft, bribery, misrepresentation, breach or inducement of a breach of a duty to maintain secrecy, or espionage through electronic or other means."[21] The Act expressly states that "[r]everse engineering or independent derivation alone shall not be considered improper means."[22] The Act allows for injunctive relief against "[a]ctual or threatened misappropriation" of a trade secret."[23]

But there are other hurdles in a trade secret case, "…a plaintiff who seeks relief for misappropriation of trade secrets must identify the trade secrets and carry the burden of showing that they exist...." Make the Plaintiff prove it. The Court found that it was not clear what Norwegian law was on trade secrets. It was also unclear that the DeCSS had been obtained "improperly" under the UTSA. This coupled with the factor that the First Amendment was not shown to have affected the outcome since the "functional" or "operational" part of the software was absent here. The injunction was reversed.

Supreme Court Depublished and will Review Bunner

This author is of the opinion that the Bunner case failed to take into consideration that the source code available on the Web, can be compiled by programmers worldwide and made executable. This may be akin to the First Amendment fighting words cases, and should have stopped the DeCSS publication. NOTE that this case was taken for Review by the California Supreme Court and all bets are off. See: Depublished NOT citable by: DVD Copy Control Assn. v. Bunner, 2002 Cal. LEXIS 614, 117 Cal. Rptr. 2d 167, 2002 Cal. Daily Op. Service 1635, 2002 D.A.R. 1968 (Cal. 2002).

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[2] Sony Corp. v. Universal City Studios, Inc., (1984), 464 U.S. 417.

[3] Streaming is a means by which an internet client can view a film "live" rather than downloading a copy to the user.

[4] DVD means Digital Versatile Disk – can hold a film or two, music, data and media.

[5] CSS means Content Scramble System

[6] Universal City Studios, Inc., Paramount Pictures Et Al., V. Eric Corley And 2600 Enterprises Inc, Decided: November 28, 2001Docket No. 00-9185

[7] United States v. O'Brien , 391 U.S. 367, 377 (1968)

[8] Ward v. Rock Against Racism, 491 U.S. 781, 799 (1989)

[9] Turner Broadcasting System, Inc. v. FCC, 512 U.S. 622, 662 (1994)

[10] Digital Millennium Copyright Act

[11] Linking is the hypertext and/or graphical (icon) link between files, which can be on one or more computers causing the file to open on the user's computer.

[12] 17 U.S.C. § 107

[13] Santa Clara County Super. Ct. No. CV786804 California. 6th Dist. App., H021153, Nov 1, 2001

[14] Civil Code section 3426.1, et. seq.

[15] Source code is the human readable non-executable line code written and red by programmers. It must be "compiled" or translated into computer-readable object code.

[16] Hacking means the reverse engineering or wrongful interception of software without permission. It include the acts of sending "denial of access" email and disseminating "viruses."

[17] Citing, Reno v. American Civil Liberties Union (1997) 521 U.S. 844, 870.

[18] Citing, Bartnicki v. Vopper(2001) 532 U.S. 514, __, 121 S.Ct. 1753, 1761.

[19] Uniform Trade Secrets Act, California. Civ. Code, § 3426.1 et. seq.

[20] MAI Systems Corp. v. Peak Computer, Inc. (9th Cir. 1993) 991 F.2d 511, 522.

[21] Civ. Code, § 3426.1 subd. (a).

[22] Civil Code op. cit.

[23] Civ. Code, § 3426.2.